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Office of International Affairs
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue, N.W.
Room 4701
Washington, DC 20230

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Dear Fiona:

These comments are submitted in response to the Notice of Inquiry (“NOI”) published on February 25, 2011 by the National Telecommunications and Information Administration (“NTIA”) regarding the Internet Assigned Numbers Authority (“IANA”) functions contract.¹

NTIA should be complimented for conducting this review of the IANA functions contract as a reflection of its longstanding commitment to “preserving a stable and secure Internet Domain Name System.”² As NTIA recognizes, “the performance of the IANA functions [is] vital to the stability and correct functioning of the Internet.”³ This is because “[t]he accuracy, integrity, and availability of the information supplied by the DNS are essential to the operation of most systems, services, or applications that use the Internet.”⁴ Determining that the IANA functions are performed effectively is therefore indispensable to the ongoing stability of the global Internet.

This historic NOI marks the NTIA’s first “comprehensive review of the IANA functions contract”⁵ since ICANN was awarded the contract in 2000. To accomplish that review, NTIA has posed “a detailed set of questions.”⁶ They include whether (1) “the IANA functions [should] continue to be treated as interdependent”; (2) “the IANA functions contract [should] include references to these [technical standards] entities, the policies they develop and instructions that the contractor follow the policies”; (3) “there [are] changes that could be made to how root zone management requests for ccTLDs are processed”; (4) “the current metrics and reporting requirements [are] sufficient”; (5) “process improvements or performance enhancements [can] be made to the IANA functions contract to better reflect the needs of users of the IANA functions to improve the overall customer

¹ United States Dep’t of Commerce, Nat’l Telecomm. and Inform. Admin., *Request for Comments on the Internet Assigned Numbers Authority (IANA) Functions*, 76 Fed. Reg. 10569, 10569 (Feb. 25, 2011).

² *Id.*

³ *Id.*

⁴ *Id.*

⁵ *Id.*

⁶ *Id.*

experience”; and (6) “additional security considerations and/or enhancements [should] be factored into requirements for the performance of the IANA functions.”⁷

ICANN submitted a response to the NOI on March 25, 2011⁸ that calls for the NTIA to begin transitioning the IANA functions to ICANN without oversight. ICANN’s arguments deserve to be engaged. They reflect its institutional position as the IANA Functions Operator on the current status and future prospects for the DNS Project, the effort to “transition the coordination of DNS responsibilities, previously performed by the U.S. government or on behalf of the U.S. Government, to the private sector so as to enable industry leadership and bottom-up policy making.”⁹ To assist the NTIA in resolving the entire range of issues surrounding the IANA functions contract, a reply to ICANN’s position has been incorporated with these comments directed at the NOI.

COMMENTS ON THE NOI

1. “In light of technology changes and market developments, should the IANA functions continue to be treated as interdependent?”

Yes. The IANA functions should be treated as interdependent. Technological change and market developments may make it possible to disaggregate these functions, but they do not make it advisable.

Implicit in the question of functional interdependence is the character of ICANN’s institutional role. Today it acts as the sole IANA Functions Operator. Apart from any doubts about mission creep, ICANN’s unique role as the overall manager and coordinator of the Internet DNS gives ICANN exclusive power over policy questions affiliated with the technical functions for which it is responsible. The exclusivity of its role makes ICANN the focal point of DNS policymaking. Governments, businesses, NGOs, and individuals invest considerable time and resources participating in ICANN’s bottom-up policymaking.

Deciding that the IANA functions need not be treated as interdependent would disrupt this multi-stakeholder model by delegating the IANA functions to more than one entity. No matter how narrow or technical, the IANA functions are inevitably accompanied by policy questions. Experience has taught that those questions can be unanticipated and unexpectedly complex. Animating those questions are the diverse and conflicting interests of ICANN’s constituents. Economic, political, legal, and other considerations influence how decisions regarding the performance of IANA functions will affect Internet users and stakeholders.

Disaggregating the IANA functions would almost certainly lead to multiple inefficiencies. Assuming that the multi-stakeholder model of DNS management continues

⁷ *Id.* at 10570-71 (punctuation altered).

⁸ ICANN, Request for Comments on the Internet Assigned Numbers Authority Functions (March 25, 2011) (“*ICANN Comments*”).

⁹ United States Dep’t of Commerce, Nat’l Telecomm. and Inform. Admin., Notice of Inquiry, *Assessment of the Transition of the Technical Coordination and Management of the Internet’s Domain Name and Addressing System*, 74 Fed. Reg. 18688, 18689 (Apr. 24, 2009).

to prevail,¹⁰ stakeholders would have to engage policymaking processes in at least two different organizations. Budgets for staff, travel, and other resources would significantly increase to engage multiple organizations on matters of DNS policy. The value of institutional memory acquired working within the ICANN policy-making universe, in some cases for more than a decade, would be diminished as certain functions and their related policy questions became the responsibility of a different organization with a different organizational culture and processes.

Accountability would become even more difficult to achieve. Tracing responsibility for errors to responsible decision-makers, and holding them accountable to correct and remedy those errors, would be complicated by dividing responsibility for the IANA functions between at least two organizations. DNS policy matters do not automatically attach to a single IANA function. Legitimate conflicts could arise as to which organization has the authority to decide a policy matter whose related technical function is ambiguous or complex. Holding decision-makers accountable would be complicated by such jurisdictional conflicts.

Wasted resources and the difficulties of achieving a satisfactory degree of accountability may present frustrations that discourage certain stakeholders from continuing to support the multi-stakeholder model of DNS management. Governments could be among the first stakeholders to notice these frustrations, based on recent complaints from members of the Governmental Advisory Committee about similar issues of cost and accountability in connection with the new gTLD consideration process. If such frustrations diminished the GAC's support for the multi-stakeholder model of DNS management, the sustainability of the model would be severely undermined.

When the DNS White Paper was published, it was understood that “overall policy guidance and control of the TLDs and the Internet root server system should be vested in a single organization that is representative of Internet users around the globe.”¹¹ That understanding remains true today. The IANA functions should continue to be treated as interdependent.

4. Are the current metrics and reporting requirements sufficient?

No. Current metrics and reporting requirements can be improved.

The IANA functions contract calls for monthly progress reports, audit data, and a final report if the contract is allowed to expire.¹² Technological progress has made more frequent, even real-time, updates feasible. Whether they would be helpful depends on whether NTIA agrees with ICANN that the IANA functions metrics and reporting requirements should be published and whether some other use for more current information, such as for cyber security measures, might be helpful.

¹⁰ Any other assumption would deeply problematic, since the outcomes of DNS management today “derive legitimacy from the participation of key stakeholders.” United States Dep’t of Commerce, Nat’l Telecomm. and Inform. Admin., *Management of Internet Names and Addresses*, 63 Fed. Reg. 31741, 31750 (June 10, 1998) (“*DNS White Paper*”).

¹¹ *Id.* at 31749.

¹² See IANA Functions Contract Clauses C.3.1 – C.3.3.

IANA metrics themselves would be improved by incorporating the requirements for implementing and maintaining the Domain Name Security Extensions system, especially management of the root zone Key Signing Key. To preserve security, disclosure of reporting and auditing data for this system should be restricted to the NTIA's root zone management partners.

5. Can process improvements or performance enhancements be made to the IANA functions contract to better reflect the needs of users of the IANA functions to improve the overall customer experience?

Yes. Certain process improvements to the IANA functions contract would improve the overall customer experience by manifesting that the United States is following through on its commitment to complete the process of privatizing the management and technical coordination of the Internet DNS.

As currently structured, the IANA functions contract is effective for an initial one-year period, followed by four one-year options periods.¹³ This structure permits the NTIA to review ICANN's performance annually and to complete the turnover of IANA functions to ICANN following the expiration of an options period or to remedy serious issues of non-performance by declining to exercise an option period.

Because these features remain relevant and useful, a similar structure should be used in the new IANA functions contract. ICANN is not prepared to complete the DNS Project, for reasons explained below. Continued oversight by the NTIA is necessary to accomplish the responsible turnover of DNS management to the private sector. However, lengthening out the contractual periods would evince the government's resolve to continue pursuing the DNS Project without depriving the government of reasonable opportunities to review ICANN's performance of the IANA functions and to use options periods as opportunities for the complete turnover of the IANA functions or as a remedy for serious non-performance. Lengthening out the periods would also reduce the burden of administering the IANA functions contract.

Given these considerations, the NTIA should structure the new contract to begin with a base period running from 2011 through 2013, with three two-year options periods available thereafter. This would make the contract effective until 2019, assuming that all options periods are used, or 2020 if the existing six-month option period following the September 30, 2011 expiration is exercised and the new contract is executed in 2012.

REPLY TO ICANN

Completing the DNS Project

ICANN's comments strive to convince the NTIA to relinquish its oversight of the IANA functions.¹⁴ At its heart, ICANN's presentation is a plea for NTIA to declare the DNS Project finished. For several reasons, ICANN's plea should be refused.

¹³ See *id.* at Clauses B.2(a)-(c).

¹⁴ *ICANN Comments* at 4 (calling for the Department of Commerce "to allow for global participation in the management of Internet names and addresses").

ICANN notes that “[i]t was anticipated that ICANN would perform the IANA functions pursuant to a contract with the DOC on a transitional basis only to ensure the security and stability of the Internet” and it complains that “[a]lmost 11 years later, the White Paper’s stated goal of transitioning the IANA functions to the private sector remains unfulfilled.”¹⁵ It points to the “relatively short transition period”¹⁶ identified in the White Paper and asserts its understanding that “[o]nce ICANN was firmly established, the DOC would fully transfer the management of these [IANA] functions to the private sector.”¹⁷

Yet ICANN omits crucial details from the White Paper. It also stated that “the U.S. Government should end its role in the Internet number and name address system in a manner that ensures the stability of the Internet.”¹⁸ Because the United States concluded that “it would be irresponsible to withdraw from its existing management role without taking steps to ensure the stability of the Internet during its transition to private sector management,” the government determined to “continue to participate in policy oversight until such time as the new corporation was established and stable.”¹⁹

ICANN also neglects to mention that other aspects of the White Paper did not work out as planned either. It was also anticipated that “members of the Interim Board would not themselves serve on the Board of Directors of the new corporation for a fixed period thereafter.”²⁰ But more than one member of the interim board continued to serve beyond the first election in November 2000.²¹ And it was contemplated that “[m]anagement structures should reflect the functional and geographic diversity of the Internet and its users.”²² That goal remains an aspiration some 13 years after ICANN’s incorporation. If these elements of the White Paper were not fulfilled as anticipated, it is difficult to see why the government is bound by a timeline for completing the DNS Project that was conceived when ICANN did not exist.

But the real answer to ICANN’s complaints lies with a series of agreements that ICANN entered with the United States, beginning with the original Memorandum of Understanding,²³ in which the U.S. Department of Commerce recognized ICANN as the organization that would carry out the DNS Project. That MOU declares in uncompromising terms that the success of the DNS Project depends on more than ICANN’s technical expertise:

Before making a transition to private sector DNS management, the DOC requires assurances that the private sector has the capability and resources to assume the important responsibilities related to the technical

¹⁵ *Id.* at 3 (footnote omitted).

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *DNS White Paper* at 31749.

¹⁹ *Id.* at 31743-44.

²⁰ *Id.* at 31750.

²¹ See <http://www.icann.org/en/general/board.html>.

²² *DNS White Paper* at 31749.

²³ Memorandum of Understanding Between the U.S. Department of Commerce and Internet Corporation for Assigned Names and Numbers (Nov. 25, 1998).

management of the DNS. To secure these assurances, the Parties will collaborate on this DNS Project (DNS Project). In the DNS Project, the Parties will jointly design, develop, and test *the mechanisms, methods, and procedures that should be in place and the steps necessary to transition management responsibility for DNS functions* now performed by, or on behalf of, the U.S. Government to a private-sector not-for-profit entity.²⁴

These terms are significant. As the U.S. Department of Commerce's general counsel testified before Congress, the MOU "did not confer immediately upon ICANN responsibility for domain name system management.... Obviously if the project is not successful, that transition of responsibility will not occur."²⁵

From the outset of the DNS Project, then, it was clear that ICANN would have to earn the trust of the community its decisions affect. Only then could the government responsibly "withdraw from its existing management role."²⁶ ICANN's performance under the Affirmation of Commitments suggests that that moment has not yet arrived.

ICANN characterizes the Affirmation of Commitments as a document in which the United States "relinquished its oversight role on the basis that 'a private coordinating process, the outcomes of which reflect the public interest, is best able to flexibly meet the changing needs of the Internet and of Internet users.'"²⁷ It further describes the Affirmation as "ending the exclusive oversight of ICANN and further institutionalizing ICANN's accountability to the global Internet community."²⁸

But ICANN has not been living up to its obligations under the Affirmation, as the NTIA itself has concluded.²⁹ Assistant Secretary Strickland expected that under the Affirmation "ICANN would make significant improvements in its operations" and yet "[o]ver a year later ... those improvements have yet to be seen."³⁰

ICANN and the NTIA see the Affirmation from opposite perspectives. ICANN believes that the government "relinquished its oversight role" by entering the Affirmation, and the NTIA believes that ICANN is failing to meet its obligations under the Affirmation. However one wishes to interpret this conflict, it is hardly an auspicious moment for the United States to declare the DNS Project complete. Even if transitioning all of the IANA functions to ICANN were the right thing to do, it is at least prudent to wait to see how ICANN implements the final recommendations of the Accountability and Transparency

²⁴ *Id.* (emphasis added).

²⁵ Testimony of Andrew J. Pincus, General Counsel, U.S. Dep't of Commerce to House Committee on Commerce, Subcommittee on Oversight and Investigations, *Domain Name System: Is ICANN Out of Control?*, July 22, 1999, at 15 (Serial No. 106-47).

²⁶ *DNS White Paper* at 31743.

²⁷ *ICANN Comments* at 4 (quoting Affirmation of Commitments by the United States Department of Commerce and the Internet Corporation for Assigned Names and Numbers, Sep. 30, 2009).

²⁸ *Id.* at 3.

²⁹ Letter from Lawrence E. Strickling, Assistant Secretary for Communications and Information, U.S. Dep't of Commerce, to Rod Beckstrom, President and CEO, ICANN, Dec. 2, 2010, at 1 (expressing concern at ICANN's "apparent failure ... to carry out its obligations as specified in the *Affirmation of Commitments*").

³⁰ *ICANN Comments* at 2.

Review Team. ICANN should be held to its commitments under the Affirmation as minimal standards of conduct for an organization with serious global responsibilities.

Similar reasons counsel against ICANN's proposed "narrowing" of the future IANA framework, by removing from NTIA oversight the port and protocol parameter registry functions, the administration of .arpa, and any new technical functions like RPKI.³¹ Only the continued strengthening of ICANN as a multi-stakeholder institution will produce the "global confidence"³² that ICANN wants to pursue. Until then, reducing the NTIA's oversight will more likely increase uncertainty over ICANN's stewardship of the Internet DNS than reassure the Internet community of the Internet's safety and stability.

ICANN's Accountability

ICANN likewise argues that "incorporating the principles of transparency and accountability into the next framework would enhance global confidence in the performance of the IANA functions."³³ By this, ICANN means to "impose transparency obligations on all parties to the agreement,"³⁴ permitting ICANN to publish each step of its activities in administering root zone requests and requiring NTIA to do the same.³⁵

This proposal points to the deep confusion with which ICANN approaches the issue of accountability. It tends to use the words "transparency and accountability" as a pair of vague buzzwords rather than as distinct and separately meaningful concepts. As its proposal illustrates, ICANN tends to treat transparency as a synonym or substitute for accountability. But disclosure isn't accountability. While ICANN should be applauded for any improvement it makes in transparency, accountability is a separate matter.

Unfortunately, ICANN tends to resist accountability.³⁶ In fact, its comments on the IANA functions contract argue against the accountability of a contractual relationship, preferring instead more "flexible" arrangements.³⁷ Such resistance is unsurprising given ICANN's recent legal position that "the board cannot empower any entity to overturn decisions or actions of the board."³⁸ Its unwillingness to accept formal accountability is

³¹ *Id.*

³² *Id.* at 7.

³³ *Id.* at 5 (capitalization modified and emphasis omitted).

³⁴ *Id.*

³⁵ *Id.* at 5-6.

³⁶ See R. Shawn Gunnarson, *A Fresh Start for ICANN*, at 13-16 (June 1, 2010) (collecting statements by governments, registries and registrars, trade associations and businesses criticizing ICANN for its weak accountability); Milton Mueller, Internet Governance Project, *ICANN, Inc.: Accountability and Participation in the Governance of Critical Internet Resources* 3 (Nov. 16, 2009) ("Like any corporate entity, ICANN is concerned primarily with its own survival and wants to be as autonomous as possible. It resists being subjected to the authority of any external agency, be it a membership, a collection of governments or an independent judiciary."); Thomas M. Lenard & Lawrence J. White, Technology Policy Institute, *ICANN at a Crossroads: A Proposal for Better Governance and Performance* 3 (June 2009) ("Our analysis indicates that a lack of accountability is the major issue surrounding ICANN.").

³⁷ See *ICANN Comments* at 12 ("To assume that a static contract can anticipate the requirements of a future and evolving Internet is unrealistic and will impede rather than improve overall customer satisfaction.").

³⁸ ICANN, *Limitations on Third Party Review of Corporate Board Actions under California Law*, Aug. 31, 2010.

worrisome. Already it is causing international support for the private sector model of DNS management to erode.³⁹

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In light of ICANN's struggles to perform its commitments under the Affirmation of Commitments and its resistance to formal accountability, NTIA's continued oversight of the IANA functions is indispensable. ICANN's pleas to reduce or eliminate the NTIA's role should be rejected. Internet users are better served by NTIA's efforts to act as ICANN's contractual partner and to appeal to ICANN's "better angels"⁴⁰ than by an arbitrary decision to declare the DNS Project completed. When ICANN earns institutional confidence by more reliably matching its actions with its ideals, the NTIA may reasonably consider whether to turn over the IANA functions unconditionally.

RECOMMENDATIONS

In summary, the NTIA should (1) continue treating the IANA functions as interdependent; (2) improve metrics and reporting requirements by adding real-time capabilities and broader publication where appropriate and by incorporating the requirements necessary to implement and maintain DNSSEC; (3) restructure the contract periods to consist of a two-year base period, followed by three two-year options periods; and (4) continue exercising limited oversight of the Internet DNS by entering another IANA functions contract with ICANN and holding it to the obligations spelled out in the Affirmation of Commitments.

³⁹ See Danish Comments to the Accountability and Transparency Review Team, Draft Proposed Recommendations, Nov. 23, 2010, at 2 (noting that "ICANN's legal accountability is very narrow as the organization is incorporated under Californian law" and recommending that ICANN "continue to explore the ways in which it can create an international legal entity ... in order to further enhance the organization's accountability to internet users globally"); French Comments to the Draft Proposed Recommendations made by the Accountability and Transparency Review Team (ATRT), Dec. 3, 2010, at 2 (noting that "ICANN is de facto a global institution but is ruled under the laws and regulations of only one legal system (California, US)" and questioning the possibility of "giv[ing] ICANN an internationalized legal status with some privileges and immunities to guarantee its independence and to improve legal certainty of its decisions"); Norwegian Comments to the Draft Proposed Recommendations—The Accountability and Transparency Review Team, Nov. 30, 2010, at 2 (finding that "there is insufficient accountability and perhaps even a shortage of classical democracy within ICANN" and concluding that "we strongly believe that ICANN should continue to explore the ways in which an international legal entity could be established. The incorporation of ICANN under US (Californian) law means that ICANN's legal accountability is very narrow and in our view needs to be further enhanced.").

⁴⁰ Abraham Lincoln, *First Inaugural Address*, March 4, 1861, reprinted in Abraham Lincoln, *Speeches and Writings: 1859-1865*, at 224 (Don E. Fehrenbacher ed., 1989).